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ABSTRACT

The study investigated the farm wife's role in decision-making related directly to general farm matters and to the adoption of agricultural innovations. Data were collected in personal interviews of 67 farm wives; statistical analysis yielded five major findings, including: (1) wives seeking information about farm matters were also likely to participate in decisions about those matters; (2) wives who participated in farm tasks tended to participate in decision-making; and (3) the husband's acceptance of agricultural innovations was not associated with his wife's involvement in decisions. Income, farm size, and number of children were negatively associated with the wife's involvement in decision-making. Three independent factors, labeled "wife's business-partner role," "age," and "socioeconomic status," were reflected in the interrelationships among all variables. The clustering of variables concerning the wife's farm activities suggests a package of behaviors associated with her role as farm business partner. The strong relationship between the wife's involvement in farm decisions and her information-seeking activity suggests that such wives might be potential candidates for the Agricultural Extension Service. The study has used the same population involved in four earlier research studies, allowing different aspects of innovation-adoption behavior within the group to be observed. (Author/AJ)

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The Role of the Wife in Farm Decisions

by

Barbara Sawer

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PREFACE

This is one of a number of studies conducted by the Adult Education Research Centre at the University of British Columbia that examine special aspects of the adoption of innovations. Earlier studies have been concerned with the attempt to assess the influence of adult education on the adoption of innovations; to refine more precisely the sources of information contributing to acceptance and adoption; the nature and influence of personal contacts; and now the role of the farm wife as an information source.

This study has used the same population involved in earlier research so that different aspects of adoption behavior within the same group can be observed. The author is in debted to Dr. John Collins for his contributions to the design of the scales and the statistical treatment of the data.

TABLE OF CONTENTS

		Page
LIST OF TABLES		vii
LIST OF FIGURES		ix
CHAPTER ONE	INTRODUCTION	1
CHAPTER TWO	PROCEDURE	5
	Hypotheses	5
	Measures of Decision-Making	9
	Measures of Predictor Variables	10
	The Setting	12
	The Sample	13
	Data Collection and Analysis	13
CHAPTER THREE	CHARACTERISTICS OF THE RESPONDENTS	15
	Information-Seeking Activity	15
	Extension Contact	20
	Task Involvement	21
	Number of Children	24
	Income, Farm Size	24
	Education, Age, Social Participation	26
	Husband's Adoption Score	26
CHAPTER FOUR	THE WIFE'S FARM DECISION-MAKING ROLE	28
	Involvement in Farm Decisions	28
	General Farm Decisions	28
	Adoption Decisions	32

Page

CHAPTER FOUR (continued)

Predictors of Decision-Making Involvement . . . 36

Information-Seeking, Extension Contact 37

Task Involvement 40

Number of Children 40

Socioeconomic Status 42

Husband's Adoption Score 42

Patterns of Relationships 44

CHAPTER FIVE CONCLUSIONS 47

REFERENCES 57

APPENDIX A PERCENTAGE DISTRIBUTIONS FOR ALL PREDICTOR VARIABLES 61

APPENDIX B LOW, MIDDLE, AND HIGH DECISION-MAKING GROUPS: MEANS AND STANDARD DEVIATIONS FOR ALL VARIABLES. . 67

APPENDIX C LOW, MIDDLE, AND HIGH DECISION-MAKING GROUPS: SOURCES OF VARIANCE FOR ONE-WAY ANALYSES OF VARIANCE 71

APPENDIX D INTERVIEW SCHEDULE 77

LIST OF TABLES

Table		Page
1.	Information Sources in Decision-Making: Classified by Origin and by Wives' Use and Non-Use	16
2.	Percentage Distribution of Wives by Responses to Information Transmittal Items	18
3.	Information-Seeking Index: Intercorrelations Among Items	19
4.	Extension Contacts: Classified by Type and by Use and Non-Use	20
5.	Task Involvement: Percentage Distribution of Wives by Extent of Involvement in Each Farm Task	22
6.	Task Involvement Index: Intercorrelations Among Items	23
7.	Means and Standard Deviations for All Predictor Variables and for All Respondents	25
8.	General Decision-Making: Percentage Distribution of Wives by Extent of Involvement in Each Decision	30
9.	General Decision-Making Index: Intercorrelations Among Items	31
10.	Adoption Decision-Making: Percentage Distribution of Wives by Extent of Involvement at Each Adoption Stage	33
11.	Adoption Decision-Making Index: Intercorrelations Among Item Subtotals	35
12.	Predictors of Decision-Making Involvement: Summary of Analysis	41
13.	Intercorrelations Among All Variables	43
14.	Rotated Factor Matrix for All Variables	45
15.	Predictors of the Wife's Involvement in Farm Decision-Making: Findings from Four Studies	54

Table Page

APPENDIX A

16. Percentage Distribution of Wives by Total Information-Seeking Scores 62

17. Percentage Distribution of Wives by Number of Extension Contacts 62

18. Percentage Distribution of Wives by Total Task Involvement Scores 63

19. Percentage Distribution of Families by Number of Children 63

20. Percentage Distribution of Families by Gross Agricultural Income 64

21. Percentage Distribution of Families by Farm Size 64

22. Percentage Distribution of Husbands and Wives by Education 65

23. Percentage Distribution of Husbands and Wives by Age 65

24. Percentage Distribution of Wives by Social Participation Scores 66

25. Percentage Distribution of Husbands by Adoption Scores 66

APPENDIX B

26. Low, Middle, and High General Decision-Making Groups: Means and Standard Deviations for All Variables 68

27. Low, Middle, and High Adoption Decision-Making Groups: Means and Standard Deviations for All Variables 69

APPENDIX C

28. General Decision-Making Groups: Variance Sources for One-Way Analyses of Variance 72

29. Adoption Decision-Making Groups: Variance Sources for One-Way Analyses of Variance 74

LIST OF FIGURES

Figure		Page
1.	General Decision-Making: Distribution of Raw Scores	38
2.	Adoption Decision-Making: Distribution of Raw Scores	39

CHAPTER ONE

INTRODUCTION

Farm families continually make decisions to maintain and improve the functioning of the farm enterprise. Some decisions relate to routine matters, while others involve large commitments of resources or changes in the structure of entire operations.

Considering the interdependence of the farm business and household units, traditional realms of husband and wife, some interesting speculations are suggested where participation in such decisions is concerned. Although each spouse's major interests and abilities presumably lie within his or her traditionally determined territory, neither husband nor wife can ignore the fact that as family resources are allocated between production and consumption, cooperation may be necessary for survival. Since the husband is usually assumed to have the option of extending his influence to decisions relating to the household, the not-so-usual circumstances contributing to possibilities for the wife to participate in decision-making related directly to her husband's business are particularly intriguing.

The farm wife's general potentialities as a business partner have long been recognized. One needs scarcely strain the imagination to recall the prototype farmer as a bib-overalled battler for the nation's bread, with his wife ever beside him, stalwart and supportive. Aspects of her partnership role have led her to be praised in the pages of a

small town newspaper in a tribute as sentimental as its author's name (Valentine, 1963), and singled out among women in the controversial comment of a nation-wide report (Royal Commission on the Status of Women, 1970).

It may even be that the farm wife would find it difficult, if not impossible, to ignore her business partner role if she wanted to. Today's wives can still identify with the observation of a farm wife fifty years ago (Sawtelle, 1924:510):

> Nowhere does a woman have a better chance to be her husband's partner in every sense of the word. The business itself is spread out in front of her door. Its details come into her kitchen. She sees the plans for the work going on about her. She hears the talk of the business at her table.

Whether the wife exercises the prerogative that would seemingly be hers is still somewhat a matter of conjecture. Relatively few studies have examined her involvement in farm decision-making even though:

1. The economic interdependence of the farm and household units has been recognized by both economists and sociologists (Heady, Black, and Peterson, 1953; Longmore and Taylor, 1951; Thomas, 1955).

2. A particular relationship appears to exist between the farm wife's role and the occupational performance of her husband (Wilcox and Lloyd, 1932; Wilcox, Boss, and Pond, 1932; Straus, 1958, 1960).

3. Patterns of democratic decision-making seem to be widely diffused among farm families (Blood and Wolfe, 1960; Burchinal and Bauder, 1965).

When the farm wife's decision-making role has been considered at all, it has usually been a feature of analyses of the interrelating occupational and family roles of farm husbands and wives, focusing on

the relative involvement of each spouse in farm and home activities. Several of these studies have found substantial evidence of joint decision-making in farm business matters, although the husband definitely appears to assume the major role (Abell, 1961; Ross and Bostian, 1965; Slocum and Brough, 1962; Wilkening and Morrison, 1963).

The more specific question of what factors are likely to be associated with joint decision-making patterns has been considered in even fewer investigations, with indications that the wife's farm decision-making role is related to her farm work role (Wilkening and Bharadwaj, 1968) and to socioeconomic characteristics such as income (Wilkening and Bharadwaj, 1968) and farm size (Beers, 1937).

Rather surprisingly, none of these analyses have examined the wife's participation in decisions leading to the acceptance of agricultural innovations even though the adoption process continues to provide a major theoretical basis for the study of farm decision-making (Lionberger, 1960; Rogers and Shoemaker, 1971). Similarly, none have explored the possibility that decision-making patterns are influenced by either the wife's farm information-seeking activity or the husband's adoption behavior, even though family decision-making patterns can be considered as frameworks for facilitating both the diffusion of information and the acceptance of change.

This study helps to identify decision-making patterns extant in farm families by investigating the wife's business partner role in terms of her involvement in decision-making. Specifically examined are predictor variables hypothesized to be associated with the extent of her involvement in decisions concerning the general management aspects of

the farm business and decisions leading to the adoption of agricultural innovations. The survey method was utilized, with data relating to the wife's decision-making role collected in personal interviews with farm wives living in the Lower Fraser Valley of British Columbia.

CHAPTER TWO

PROCEDURE

The research strategy evolved from the formulation of directional hypotheses predicting variables expected to be associated with the extent of the wife's participation in farm decisions. The following discussion presents the hypotheses, the rationale for their directional predictions, and the operational definitions of the variables examined. The setting of the study and procedures used in sampling, data collection, and data analysis are then described.

HYPOTHESES

Directional hypotheses predicted variables expected to be associated either positively or negatively with the wife's farm decision-making role.

Expected to be positively associated with her involvement in decision-making were:

1. Her seeking of information about farm matters in general, and her contact with the Agricultural Extension Service in particular.

2. Her participation in farm tasks.

Expected to be negatively associated with her involvement in decision-making were:

3. The number of children in the family.

4. Indicators of socioeconomic status--such as income, farm size, education, age, and social participation.

5. The husband's adoption of agricultural innovations.

Clues sifted from the literature influenced the selection of predictor variables and shaped the rationale behind the directions of the predictions.

1. Since decision-making patterns appear to evolve as husbands and wives participate according to their interests and abilities (Kenkel, 1966:412), it would seem to follow that wives who become knowledgeable about farm matters probably increase their chances of making a useful contribution in farm decision-making. Such knowledge might accumulate as the wife's perception of information sources is influenced by her involvement in the business operations of the farm (as claimed by Ross and Bostian, 1965), or as responsibility in decision-making is accompanied by responsibility for gathering information about the content of the decisions. Since psychological involvement increases as information-seeking behavior becomes purposive (Rogers, 1962:83), active information-seeking would seem to imply a degree of personal commitment which might carry over into decision-making situations where the information is relevant.

It might be supposed then that the wife's seeking of information about farm matters in general, and her contact with the Agricultural Extension Service in particular, are positively associated with her involvement in farm decisions.

2. A distinctive feature of farm living is that the place of work is usually adjacent to the place of residence. Tasks tend to be close at hand, and farm work, like woman's work, is never done. The accessibility of such tasks and the availability of a wife to do them may result in the wife's assuming an active farm work role. Wives

who do so seem likely to be interested in the outcomes of decisions directly affecting their work roles, and may find that their experience strengthens their bargaining position in decision-making situations. Involvement in decision-making might even lead to involvement in tasks in the first place as responsibility for decisions overlaps into work roles as the decisions are implemented.

Since doing and deciding appear to be related, with patterns of family task allocation similar to those of decision-making (Wilkening and Bharadwaj, 1967, 1968), a positive association might be expected between the wife's participation in farm tasks and her participation in farm decision-making.

3. Another facet of the farm wife's role is reflected in the predictor variable relating to family size. The larger the family, the more it might be supposed that the wife's time and energy resources will be directed to the homemaker-mother role, with her role in the family business as a more or less marginal member. The fact that she has a large family in the first place may be the manifestation of her particular orientation towards the mother role (or her husband's particular orientation towards the husband role). Although family size does not appear to have been examined before in studies of farm decision-making patterns, researchers not confined to rural populations have provided evidence that the larger the family, the more likely it is to be characterized by husband-dominant decision-making, even with social class held constant (Campbell, 1970; Nye et al., 1970).

It therefore seems tenable that the number of children in the family is negatively associated with the wife's participation in decisions pertaining to farm matters.

4. As socioeconomic levels increase, there is some indication that family decision-making roles become more specialized, with husbands tending to become less involved in household decisions and wives less involved in farm decisions (Beers, 1937; Wilkening, 1958; Wilkening and Bharadwaj, 1968). Decisions pertaining directly to the farm are perhaps of less concern to the wife when the allocation of resources between farm and home units is not particularly critical. As income and farm size increase, her opportunities to participate in the management of a large, complex business may be restricted by her limited knowledge and experience. Since resources are likely available to hire outside help, there may be little or no need for her to be involved in farm matters and she may find herself occupied instead with nonfarm activities.

Five socioeconomic characteristics--income, farm size, education, age, and the wife's social participation--were examined in this study. All were expected to be negatively associated with the wife's emphasis on a farm decision-making role.

5. While the wife's farm decision-making role has been the subject of relatively few studies, an abundance of data has been accumulated regarding her husband's decision-making activity, particularly where the adoption of agricultural innovations is concerned (Lionberger, 1960; Rogers and Shoemaker, 1971). Although the wife's involvement in specific adoption decisions does not appear to have been examined directly, there is some evidence that little joint decision-making in general farm matters appears to occur in high-adopter families (Straus, 1960). Since the acceptance of agricultural innovations tends to be linked with socioeconomic status (Rogers and

Shoemaker, 1971), it might be suspected that early-adopter families exhibit the "split" decision-making patterns found to be associated with increasing socioeconomic levels. Not only might the scope of the farm business affect the wife's opportunity to participate in farm decision-making in general, but the complexity often characterizing adoption decision-making may require specialized knowledge and skills she does not possess.

In keeping with this rationale, the husband's adoption of agricultural innovations might be expected to be negatively associated with his wife's involvement in decisions about those innovations and about farm matters in general.

MEASURES OF DECISION-MAKING

The extent of the wife's involvement in farm decisions was operationally defined in terms of scores on two ad hoc indices.

A "general decision-making" index of twelve items was designed to assess the relative involvement of husbands and wives in decisions relating generally to the management of farm operations and resources. Some of the decisions concerned routine matters, while others involved large financial commitments or major changes in the structure of the farm business. None of the items specifically pertained to strawberry production; examined instead were issues thought to be concerns of most farm families.

Response categories for each decision item were "husband only," "husband more than wife," "husband and wife about equally," "wife more than husband," and "wife only." Alternatives were weighted from 2 to

6 in the order given, and a total score was computed for each respondent by summing the weights recorded.

An "adoption decision-making" index provided data reflecting the wife's participation in decisions leading to the adoption of six innovations in strawberry production. Participation was considered at each of the five traditional stages in the adoption process (Rogers, 1962:119)--awareness, interest, evaluation, trial, and adoption--plus a sixth stage, discontinuance. The response categories were identical to those used in the general decision-making index, but alternatives were assigned grossly differentiating weights of 0, 10, 20, 30, and 40.

So that wives whose husbands had made more progress towards adoption would not accumulate spuriously high scores, a mean score for each innovation was calculated for each respondent by summing the weights recorded and dividing by the number of stages at which decisions had been made. The subtotals for each innovation were then combined into an overall score for each respondent.

Individual decision items and a discussion of the validity and reliability of the decision-making indices are presented in Chapter Four.

MEASURES OF PREDICTOR VARIABLES

Operationally defining the predictor variables involved the construction of ad hoc indices measuring information-seeking and task involvement, and the consideration of other terms having varying connotations.

The wife's overall seeking of farm information was operationally defined by constructing an index combining: (a) the number of information sources used in decision-making; (b) the number of agricultural meetings, field days, and short courses attended during the past two years; and (c) weights recorded for four items concerning the wife's transmitting of agricultural information to her husband and he to her, with the responses "never," "seldom," "occasionally," "frequently," and "very frequently" assigned values from 0 to 4.

Extension contact, considered as a specific type of information-seeking activity, was defined as the total number of the wife's contacts with agents of the Agricultural Extension Service during the past year. Data were collected in categories of personal and impersonal contacts suggested by Rogers and Capener (1960).

Participation in farm tasks was measured using an index designed to assess the wife's involvement, compared to that of her husband, in twelve tasks directly related to the farm business. A total score was computed by summing weights from 2 to 6 for the responses "husband only," "husband more than wife," "husband and wife about equally," "wife more than husband," and "wife only."

Individual items and indications of the reliability and validity of the task involvement and information-seeking indices are reported in Chapter Three.

In other definitions, income was considered as the gross value of sales from all agricultural operations and size of farm as the total number of acres farmed. Educational levels of both husband and wife were defined as the number of years completed in school, while ages were expressed in nearest whole number of years. For number of

children, all children in the family were counted regardless of their age or current residence.

The wife's social participation was measured by the Chapin Social Participation Scale (Chapin, 1955), with a total score formed by combining values from 1 to 5 for organization membership, attendance, financial contributions, committee membership, and holding office. The scale does not include church membership, although participation in church-related organizations is considered.

The husband's acceptance of agricultural innovations was defined in terms of an overall score indicating his progress towards the adoption of six innovations (the same ones used in determining the wife's involvement in adoption decisions). For each innovation, values from 1 to 5 were assigned to the stages of awareness, interest, evaluation, trial, and adoption (Alleyne and Verner, 1969a).

THE SETTING

The site of the study was the Fraser Valley, a part of the Lower Coast Area of British Columbia. Some 20 miles wide, the Valley extends eastward about 100 miles from the Strait of Georgia. It is bound on the north by the Coast Range, on the east by the Cascade Mountains, and on the south by the International Boundary.

The Valley's fortuitous combination of fertile soil, a level terrain, and a moderate marine climate has led to a high degree of agricultural development (Province of British Columbia, 1962). The growing of vegetables and small fruits is the principal agricultural activity of Valley farmers, although major production is also concentrated in dairy, poultry, and beef cattle.

The function of the Agricultural Extension Service in the Fraser Valley is performed by local District Agriculturists, who are concerned with general farming, and by local District Horticulturists, who specialize in crops such as strawberries and other small fruits.

THE SAMPLE

Data for the study were provided by 67 married couples living on Fraser Valley farms. The husbands, who provided data relating to income, farm size, and adoption behavior, were among the 100 randomly-selected commercial growers interviewed by Alleyne and Verner (1969a, 1969b) in their study of the adoption of innovations in strawberry production. The growers were classified by marital status for the purposes of the present study, with all single, widowed, divorced, or separated respondents eliminated. Seventy-six married growers were identified, and interviews were sought with their wives.

DATA COLLECTION AND ANALYSIS

Data were collected from 67 wives during the fall of 1970, using an interview schedule pretested on 10 women not included in the sample. Eight wives refused to participate and one declined because of illness.

The wives self-reported their involvement in decision-making and were the source of all data relating to information-seeking, Extension contact, task involvement, number of children, education, age, and social participation.

The data were analyzed using Pearson product-moment correlation (r), one-way analysis of variance for unequal numbers of subjects

followed by Duncan's New Multiple Range Test (Winer, 1962), and factor analysis by the principal component method with reference axes rotated orthogonally (Harman, 1967). Tests of significance were made at the .05 and .01 levels.

CHAPTER THREE

CHARACTERISTICS OF THE RESPONDENTS

A background for the analysis and interpretation of the data relating specifically to the wife's decision-making role was established by considering the characteristics of the respondents, with particular reference to the predictor variables.

INFORMATION-SEEKING ACTIVITY

Three aspects of the wife's overall farm information-seeking activity were investigated--her use of information sources in farm decision-making; her attendance at agricultural meetings, field days, and short courses; and the transmitting of agricultural information within the family.

The wives' use of information sources in farm decision-making was not particularly widespread, although about one-third of the wives (34.4 per cent) reported drawing upon such sources when confronted with decisions relating directly to farm operations or resources. The mean number of sources named by these respondents was 2.0. Information-seeking related specifically to decisions concerning the six agricultural innovations investigated was not as extensive. Only fourteen wives (20.9 per cent) reported such activity, and indicated consulting an average of 1.5 information sources per innovation.

For both general farm and adoption decision-making, wives tended to rely mostly on sources of a personal nature, such as friends, neighbors, relatives, or their own experience (Table 1). The use of personal

TABLE 1

INFORMATION SOURCES IN DECISION-MAKING: CLASSIFIED BY ORIGIN AND BY WIVES' USE AND NON-USE

Origin[a]	General decisions		Adoption decisions	
	Use %	Non-use %	Use %	Non-use %
Government	20.9	79.1	13.4	86.6
Commercial	10.4	89.6	1.5	98.5
Farm organizations	3.0	97.0	3.0	97.0
Personal	34.3	65.7	16.4	83.6

[a] Categories according to Verner and Gubbels (1967).

sources in making decisions about general farm matters was reported by 34.3 per cent of the respondents, while 16.4 per cent used such sources in decisions relating to adoption. Information originating from government sources, namely the Agricultural Extension Service, was used by 20.9 per cent of the wives in general farm decision-making and by 13.4 per cent in adoption decision-making. Relatively little use was reported of information from commercial sources or from farm organizations.

Wives' attendance at agricultural meetings, field days, and short courses also tended to be low, with only seven wives (10.4 per cent) indicating that they had attended a total of fifteen such events during the past two years. Included were meetings of the Lower Mainland Horticultural Improvement Association; the Associations's annual two-day Growers' Short Course; and Strawberry Field Day, sponsored annually by the Agricultural Extension Service.

The transmitting of agricultural information within the family was explored generally in four items (with the responses "never," "seldom," "occasionally," "frequently," and "very frequently" assigned weights from 0 to 4). The highest mean weight (1.6) was recorded for the wife's overall communication of agricultural information to her husband ("Do you ever tell your husband something you have read or heard about agricultural matters?"). (Table 2) Considerably lower weights were recorded for the other three items: "Does your husband ever bring home agricultural publications for you to read?" (.7); "Do you ever bring home agricultural publications for him to read?" (.5); and "When your husband is considering a new farm practice do you yourself try and find out about it?" (.8).

The index providing an overall measure of information-seeking activity combined the number of sources of information used in decision-making; the number of meetings, field days, and short courses attended; and the weights recorded for the information transmittal items. Although none of the behaviors had been particularly widespread when examined individually, total scores, ranging from 0 to 31, reflected considerable variation among respondents. The mean score was 7.87, skewed positively, with 22.4 per cent of the wives reporting no information-seeking activity at all.

Item-total correlations indicate that all aspects of activity studied (with the exception of meetings attended) were significantly related to the total score (Table 3). The original communality for the total score (.99) suggests high reliability. Assuming that each item is a face valid measure of information-seeking activity, the inter-item correlations indicate that the index has considerable validity.

TABLE 2

PERCENTAGE DISTRIBUTION OF WIVES BY RESPONSES TO

INFORMATION TRANSMITTAL ITEMS

Item	Never (x0)	Seldom (x1)	Occas-ionally (x2)	Fre-quently (x3)	Very fre-quently (x4)	Mean[a]
Husband brings home publications on agricultural matters for wife to read	71.7	4.5	13.4	7.5	3.0	.7
Wife brings home publications on agricultural matters for husband to read.	76.1	4.5	11.9	4.5	3.0	.5
Wife tells husband what she has read or heard about agricultural matters	29.9	14.9	34.3	10.5	10.5	1.6
Wife tries to find out about new practice husband is considering	64.2	9.0	13.4	9.0	4.5	.8

[a] The mean for each row was calculated on the basis of the weights shown--"never" = 0, "seldom" = 1, and so on.

TABLE 3

INFORMATION-SEEKING INDEX: INTERCORRELATIONS AMONG ITEMS[a]

Item	1	2	3	4	5	6	7	8
1. Husband brings home publications on agricultural matters for wife to read	.22							
2. Wife brings home publications on agricultural matters for husband to read	.44	.37			.05 level = .24			
3. Wife tells husband what she has read or heard about agricultural matters	.24	.44	.47		.01 level = .31			
4. Wife tries to find out about new practice husband is considering	.26	.34	.63	.76				
5. Number of agricultural meetings, field days, and short courses attended	-.05	-.01	.09	.00	.03			
6. Number of sources of information used in general decision-making	.31	.44	.57	.85	.00	.78		
7. Number of sources of information used in adoption decision-making	.16	.37	.47	.62	.10	.68	.49	
8. Total	.46	.63	.73	.81	.15	.84	.86	.99

[a] Original communalities are reported in the principal diagonal. These are included as estimates of reliability.

EXTENSION CONTACT

Wives' contacts with the Agricultural Extension Service, considered as a separate type of information-seeking activity, tended to be relatively low. Although a mean of 3.85 was recorded for the number of contacts during the previous year, 53.7 per cent of the wives reported no contact whatsoever.

All of the contacts were with local District Horticulturists, who specialize in crops such as strawberries and other small fruits. None of the respondents reported contacts with the local District Agriculturists, who are concerned with general farming.

TABLE 4

EXTENSION CONTACTS: CLASSIFIED BY TYPE AND BY USE AND NON-USE

Type of contact[a]	Wives		Husbands[b]	
	Use %	Non-use %	Use %	Non-use %
Meetings, field days	7.5	92.5	--	--
Farm visits	3.0	97.0	64.2	35.8
Office visits	6.0	94.0	44.8	55.2
Telephone calls	20.9	79.1	71.6	28.4
Radio or television programs	20.9	79.1	70.2	29.8
Newspaper articles	22.4	77.6	82.1	17.9
Circular letters, bulletins	32.8	67.2	85.1	14.9

[a] Categories according to Rogers and Capener (1960).

[b] Data provided by Alleyne and Verner (1969b), who did not include a category relating to meetings and field days.

The wives tended to rely on impersonal types of contact, with the heaviest use reported for circular letters or bulletins (32.8 per cent), newspaper articles (22.4 per cent), and radio or television programs (20.9 per cent). (Table 4) The extent of personal contact was considerably lower, although 20.9 per cent of the wives had made telephone calls to the agent's office.

The pattern noted was similar to that exhibited by the respondents' husbands--although the husbands reported more extensive use of all types of contact, they too drew mostly on impersonal sources.

The wife's Extension contact was positively associated with her overall information-seeking activity ($r = .36$), her involvement in farm tasks ($r = .27$), her social participation ($r = .30$), and her husband's adoption score ($r = .34$). (.05 level = .24; .01 level = .31)

TASK INVOLVEMENT

The twelve farm tasks studied related to the farm business in general and strawberry production in particular. The mean weights for each task item, reflecting the extent of the wife's participation relative to her husband's, ranged from 2.4 to 4.4, where a weight of 2 equals "husband only" and 4 represents "husband and wife about equally." (Table 5)

Tasks specific to strawberry production had the highest mean weights: hand weeding (4.4), removing blossoms (4.2), setting runners (4.1), supervising pickers (4.1), recruiting pickers (3.8), and planting berries (3.8).

Somewhat lower weights were recorded for the five items concerning the handling of finances, such as writing checks (3.6), paying

TABLE 5

TASK INVOLVEMENT: PERCENTAGE DISTRIBUTION OF WIVES BY EXTENT OF INVOLVEMENT IN EACH FARM TASK

Task	Neither spouse	Husband only (x2)	Husband more (x3)	About equally (x4)	Wife more (x5)	Wife only (x6)	Mean[a]
Recruits pickers	13.4	19.4	6.0	41.8	7.5	12.0	3.8
Keeps farm accounts	9.0	46.3	10.5	7.5	1.5	25.4	3.4
Pays bills	3.0	44.8	7.5	17.9	7.5	19.4	3.5
Works with farm machinery	6.0	67.2	16.4	7.5	1.5	1.5	2.4
Completes income tax forms	55.2	25.4	3.0	1.5	--	14.9	3.5
Pays pickers	6.0	44.8	--	20.9	4.5	23.9	3.6
Plants berries	20.9	16.4	4.5	43.3	6.0	9.0	3.8
Does hand weeding	17.9	11.9	1.5	32.8	11.9	23.9	4.4
Sets runners between rows	22.4	17.9	1.5	31.3	10.5	16.4	4.1
Removes blossoms	35.8	11.9	1.5	29.9	4.5	16.4	4.2
Writes checks	4.5	32.8	9.0	34.3	7.5	11.9	3.6
Supervises pickers	19.4	22.4	6.0	19.4	7.5	25.4	4.1

[a] The mean for each row was calculated on the basis of the weights shown--"husband only" = 2, "husband more" = 3, and so on.

TABLE 6

TASK INVOLVEMENT INDEX: INTERCORRELATIONS AMONG ITEMS[a]

Task	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Recruits pickers	.46												
2. Keeps farm accounts	.24	.76							.05 level = .24				
3. Pays bills	.25	.83	.84						.01 level = .31				
4. Works with farm machinery	.23	.03	.13	.21									
5. Completes income tax forms	.19	.59	.56	.15	.52								
6. Pays pickers	.45	.64	.72	.22	.40	.63							
7. Plants berries	.12	.08	.10	.28	.25	.02	.40						
8. Does hand weeding	.13	.06	.05	.20	.27	.08	.54	.67					
9. Sets runners between rows	.12	.12	.02	.18	.24	.04	.39	.74	.69				
10. Removes blossoms	.27	.18	.10	.21	.39	.15	.23	.63	.71	.63			
11. Writes checks	.33	.59	.76	.21	.50	.58	.07	.01	.03	.15	.65		
12. Supervises pickers	.57	.13	.17	.31	.32	.30	.19	.30	.36	.40	.35	.51	
13. Total	.53	.60	.60	.39	.68	.60	.48	.62	.62	.68	.58	.62	.99

[a] Original communalities are reported in the principal diagonal. These are included as estimates of reliability.

pickers (3.6), paying bills (3.5), completing income tax forms (3.5), and keeping farm accounts (3.4). Working with farm machinery was the sole responsibility of the husbands in a substantial majority of the families, resulting in the lowest mean weight (2.4) for that item.

Each of the task items was positively correlated at the .01 level of significance with total scores on the task involvement index, and the original communality for the total score (.99) indicates a high estimate of reliability. (Table 6) Assuming that each item is a face valid measure of task involvement, the inter-item correlations suggest considerable evidence of the index's validity.

The wife's overall participation in farm tasks was positively associated with both her information-seeking activity ($r = .32$) and her Extension contact ($r = .27$), and negatively associated with income ($r = -.43$), size of farm ($r = -.42$), and the number of children in the family ($r = -.24$). (.05 level = .24; .01 level = .31)

NUMBER OF CHILDREN

The mean number of children per family was 3.91. Only three couples were childless.

Family size was negatively associated with the wife's participation in farm tasks at the .05 level of significance ($r = -.24$), but was not related to any of the socioeconomic variables, such as income, size of farm, age, education, and social participation.

INCOME, FARM SIZE

Although small fruit production was the major enterprise of 85 per cent of the families, most had other agricultural operations

TABLE 7

MEANS AND STANDARD DEVIATIONS

FOR ALL PREDICTOR VARIABLES AND FOR ALL RESPONDENTS[a]

Variable	Mean	S.D.
Information-seeking	7.87	8.72
Extension contact	3.85	6.27
Task involvement	36.27	13.31
Number of children	3.91	2.22
Income	33,494.00	60,892.70
Farm size	63.66	133.05
Education--husband	8.43	3.14
Education--wife	8.84	3.42
Age--husband	53.52	11.03
Age--wife	48.78	9.63
Social participation	9.69	11.54
Husband's adoption score	26.15	3.17

[a] Percentage distributions for all predictor variables are reported in Appendix A.

as well, including vegetables (22.4 per cent), livestock (13.4 per cent), dairy (11.9 per cent), and poultry (4.5 per cent).

Gross agricultural income from all operations averaged $33,494, and the mean size of farm was 63.66 acres (Table 7). Distributions for both variables were definitely and positively skewed, however. More than half of the respondents (55.2 per cent) reported incomes of less than $10,000, and more than half (53.7 per cent) had holdings of fewer than 15 acres.

As might be expected, income and farm size were highly correlated ($r = .91$), with parallel patterns of relationships with other variables. Each was positively associated with the husband's adoption score ($r = .29$ for income and .24 for farm size) and the educational levels of both husband ($r = .30$ and .36) and wife ($r = .46$ and .39). Negatively related to both income and farm size was the wife's involvement in farm tasks ($r = -.43$ and $-.42$). (.05 level = .24; .01 level = .31)

EDUCATION, AGE, AND SOCIAL PARTICIPATION

Both husbands and wives had completed an average of about eight years in school. Eight wives (11.9 per cent) and nine husbands (13.4 per cent) had fewer than five years of schooling. At the other extreme, more wives (26.9 per cent) than husbands (12 per cent) had completed grade twelve.

The couples tended to be middle-aged or older--none of the husbands or wives were under 25 years of age, while more than one-third were 55 or more. Mean ages were 53.52 for husbands and 48.78 for wives.

The wife's level of social participation, as measured by the Chapin Index (Chapin, 1955), was relatively low. Scores of less than 15 were recorded for 79.1 per cent of the respondents, and 22.4 per cent reported no social participation at all. The wives' mean score of 9.69 was considerably lower than the mean of 13.64 recorded for their husbands by Alleyne and Verner (1969a).

HUSBAND'S ADOPTION SCORE

The husbands' acceptance of technological change, indicated by their self-reported progress towards the adoption of six agricultural

innovations in strawberry production (Alleyne and Verner, 1969a), was relatively high. Maximum adoption scores of 30, indicating acceptance of all six practices, were recorded for 20.9 per cent of the operators. The mean score for all 67 respondents was 26.15.

Adoption scores were positively associated at the .05 level of significance with farm size ($r = .24$) and income ($r = .29$), consistent with Rogers and Shoemaker's (1971) generalizations that earlier adopters have larger farms and a more favorable financial position than do later adopters. Also related positively with the husbands' adoption scores, at the .01 level of significance, was the wife's Extension contact ($r = .34$). Age was negatively related to adoption ($r = -.45$ for husbands and $-.44$ for wives).

CHAPTER FOUR

THE WIFE'S FARM DECISION-MAKING ROLE

The exploration of the data relating to the wife's farm decision-making role was twofold. The wife's involvement in decision-making relative to that of her husband was first examined, with attention to the nature and content of the individual decision items. The analysis then focused on the predictor variables hypothesized to be associated with the extent of the wife's participation in decisions concerning general farm matters and decisions leading to the adoption of specific agricultural innovations.

INVOLVEMENT IN FARM DECISIONS

The farm decisions studied were selected to reflect a variety of decision areas, although they were thought to be representative of decisions likely to be encountered by farm families and likely to have been considered recently.

While the general farm decision items provided an indication of the wife's relative involvement in overall management aspects of the farm enterprise, the adoption decision items permitted a close look at her involvement in a particular type of decision, as well as in various stages of the adoption process.

General Farm Decisions

The twelve decisions dealing with general farm operations and resources represented ongoing concerns. Some decisions pertained to

routine matters, while others involved major changes in the farm enterprise or large outlays of financial resources. None of the items specifically concerned strawberry production since issues thought to be relevant to farm families in general were examined instead.

The husband, not surprisingly, appeared as the dominant partner in all of the decisions studied (Table 8). The mean weights for each decision item, reflecting the extent of the wife's involvement, ranged from 2.2 to 3.7, where a weight of 2 is equivalent to "husband only" and 4 represents "husband and wife about equally."

Considerable evidence of joint decision-making was apparent, however, for those decisions which can be seen as relatively important. Borrowing money for the farm, buying or renting more land, and switching to a new crop were equal concerns of the husband and wife in about 70 per cent of the families, with the highest mean weights (3.6 and 3.7) recorded for these decisions. Issues relating generally to the acceptance of technological changes (whether to try a new farm practice) were considered equally by both partners in more than half of the families (mean weight = 3.4).

The least joint involvement occurred in decisions of a more or less minor or specific nature, such as what make of machinery to buy, what kind of fertilizer to use, and whether to attend an agricultural meeting (mean weights = 2.2 and 2.4).

Similar patterns have been noted by other investigators, who have found that decisions involving major changes or commitments of financial resources seem to be made jointly in most families, while minor or routine decisions appear to be made mostly by the husband alone (Abell, 1961; Ross and Bostian, 1965; Slocum and Brough, 1962).

TABLE 8

GENERAL DECISION-MAKING: PERCENTAGE DISTRIBUTION OF WIVES BY EXTENT OF INVOLVEMENT IN EACH DECISION

Decision	Never considered	Husband only (x2)	Husband more (x3)	About equally (x4)	Wife more (x5)	Wife only (x6)	Mean[a]
Whether to try a new crop variety	--	22.4	26.9	46.3	4.5	--	3.3
Whether to buy or rent more land	1.5	11.9	14.9	70.2	1.5	--	3.6
Whether to borrow money for the farm	3.0	10.5	16.4	68.7	1.5	--	3.6
Whether to buy major farm equipment	3.0	35.8	28.4	31.3	1.5	--	3.0
What specific make of equipment to buy	1.5	86.6	9.0	3.0	--	--	2.2
What kind of fertilizer to use	--	76.1	10.5	10.5	1.5	1.5	2.4
Whether to attend an agricultural meeting	4.5	79.1	6.0	1.5	7.5	1.5	2.4
Whether to subscribe to a farm publication	4.5	70.2	10.5	6.0	7.5	1.5	2.5
How many farm workers to hire	1.5	26.9	16.4	41.8	9.0	4.5	3.5
Whether to try a new farm practice	--	22.4	17.9	53.7	6.0	--	3.4
Whether to increase or decrease crop acreage	--	13.4	20.9	61.2	4.5	--	3.5
Whether to switch to a new crop	--	10.5	16.4	68.7	4.5	--	3.7

[a] The mean for each row was calculated on the basis of the weights shown--"husband only" = 2, "husband more" = 3, and so on.

TABLE 9

GENERAL DECISION-MAKING INDEX: INTERCORRELATIONS AMONG ITEMS[a]

Decision	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Whether to try a new crop variety	.65												
2. Whether to buy or rent more land	.54	.77							.05 level = .24				
3. Whether to borrow money for the farm	.48	.77	.67						.01 level = .31				
4. Whether to buy major farm equipment	.29	.50	.47	.43									
5. What specific make of equipment to buy	.11	.12	.12	.35	.31								
6. What kind of fertilizer to use	.40	.26	.26	.14	.40	.49							
7. Whether to attend an agricultural meeting	.40	.25	.25	.27	.23	.51	.86						
8. Whether to subscribe to a farm publication	.37	.20	.21	.22	.22	.45	.91	.86					
9. How many farm workers to hire	.43	.40	.35	.22	.29	.51	.44	.48	.51				
10. Whether to try a new farm practice	.71	.58	.51	.41	.19	.44	.44	.41	.61	.78			
11. Whether to increase or decrease crop acreage	.57	.72	.49	.47	.16	.43	.39	.34	.53	.78	.84		
12. Whether to switch to a new crop	.67	.72	.59	.43	.13	.39	.37	.38	.46	.63	.79	.77	
13. Total	.71	.72	.67	.59	.36	.61	.71	.68	.71	.81	.79	.77	.99

[a] Original communalities are reported in the principal diagonal. These are included as estimates of reliability.

The couples had encountered nearly all of the decisions investigated. At most, only about 5 per cent of the wives indicated that an individual decision item had never been considered in their families.

Correlations between the individual items and total scores on the general decision-making index (Table 9) indicate internal consistency, while the original communality for the total score (.99) indicates high reliability. Assuming that each separate item is a face valid measure of decision-making, the inter-item correlations suggest that the general decision-making index has considerable validity.

Adoption Decisions

The adoption decisions studied concerned six agricultural innovations in strawberry production. The wife's participation was considered at each of the five traditional stages in the adoption process--awareness, interest, evaluation, trial, and adoption--plus a sixth stage, discontinuance.

As noted for general farm decisions, the husband obviously assumed the major role in decisions leading to adoption. Mean weights, indicating the extent of the wife's involvement at each stage, ranged from 1.8 to 8.8, where "husband only" equals 0, and "husband more than wife" equals 10. (Table 10)

The husband's influence was particularly noticeable at the awareness and interest stages (weights of 1.8 to 3.9). Although there was no marked tendency for wives to be involved with one innovation more than another, their participation became more apparent at the evaluation stage and increased through trial and adoption (weights 6.4 to 8.8).

TABLE 10

ADOPTION DECISION-MAKING: PERCENTAGE DISTRIBUTION OF WIVES BY EXTENT OF INVOLVEMENT AT EACH ADOPTION STAGE

Adoption stage	Never considered	Don't know	Husband only (x 0)	Husband more (x10)	About equally (x20)	Wife more (x30)	Wife only (x40)	Mean[a]
Soil analysis for nematode control								
Awareness	3.0	--	89.6	--	1.5	--	6.0	2.8
Interest	4.5	--	77.6	7.5	1.5	9.0	--	3.9
Evaluation	9.0	--	41.8	37.3	7.5	4.5	--	7.2
Trial	32.8	--	29.9	32.8	3.0	1.5	--	6.4
Adoption	28.4	--	26.9	31.3	9.0	4.5	--	8.8
Spraying with Captan for fruit-rot control								
Awareness	1.5	--	94.0	--	--	--	4.5	1.8
Interest	1.5	--	79.1	11.9	1.5	6.0	--	3.2
Evaluation	1.5	--	43.3	46.3	4.5	4.5	--	7.0
Trial	7.5	1.5	40.3	41.8	9.0	1.5	--	7.0
Adoption	7.5	1.5	38.8	41.8	9.0	3.0	--	7.4
Using "matted rows" instead of "hills"								
Awareness	--	1.5	92.5	--	1.5	--	4.5	2.1
Interest	--	1.5	77.6	13.4	1.5	6.0	--	3.5
Evaluation	1.5	--	41.8	47.8	6.0	3.0	--	7.0
Trial	10.4	--	35.8	44.8	9.0	--	--	7.0
Adoption	13.4	--	32.8	40.3	9.0	4.5	--	8.3
Chemical weed control								
Awareness	--	1.5	94.0	--	--	--	4.5	1.8
Interest	1.5	1.5	77.6	10.4	3.0	6.0	--	3.5
Evaluation	6.0	--	38.8	46.3	4.5	4.5	--	7.3
Trial	16.4	--	34.3	40.3	6.0	3.0	--	7.3
Adoption	16.4	--	34.3	38.8	10.4	--	--	7.1
Using picking carts								
Awareness	--	3.0	82.1	7.5	1.5	6.0	3.0	3.1
Interest	7.5	--	76.1	10.5	1.5	4.5	--	2.9
Evaluation	10.5	--	38.8	38.8	6.0	6.0	--	7.7
Trial	46.3	--	22.4	20.9	9.0	1.5	--	8.0
Adoption	55.2	--	17.9	17.9	7.5	1.5	--	8.3
Using virus-free certified plants								
Awareness	--	1.5	94.0	--	--	--	4.5	1.8
Interest	--	--	82.1	10.5	1.5	6.0	--	3.1
Evaluation	--	--	46.3	44.8	6.0	3.0	--	6.6
Trial	3.0	--	43.3	44.8	7.5	1.5	--	6.6
Adoption	3.0	--	38.8	46.3	9.0	3.0	--	7.5

[a] The mean for each row was calculated on the basis of the weights shown--"husband only" = 0, "husband more" = 10, and so on.

These findings perhaps parallel those for general farm decisions, where joint decision-making was most evident for major concerns. The final decision to adopt may involve a large commitment of financial resources or changes in the structure of the farm business. As the adoption decision-making process progresses and the final decision nears, the extent of the wife's interest in the outcome may increase. In the early stages of the process, however, her husband is likely in a better position to become aware of the innovation in the first place and to collect information about its application to his particular situation.

Since adoption takes place over time, it was not expected that every family would have made decisions corresponding to all stages for each innovation. While the use of virus-free certified plants was widespread, with only 3 per cent of the wives reporting non-adoption, more than half indicated that decisions to adopt picking carts had not been encountered. There were no instances of discontinuance reported.

The correlations between the subtotals for each innovation (calculated by averaging each wife's accumulated weights over the number of stages at which decisions had been made) and the total scores for the adoption decision-making index indicate evidence of internal consistency (Table 11). High estimates of reliability are expressed by the original communalities, ranging from .82 to .99. Assuming that each individual item is a face valid measure of decision-making, the high inter-item correlations suggest that the entire index is also valid.

Although variations in methodology do not permit a direct comparison of the wife's involvement in general farm decisions with her participation in adoption decisions, the husband appears to be the dominant partner in both types of decisions.

TABLE 11

ADOPTION DECISION-MAKING INDEX: INTERCORRELATIONS AMONG ITEM SUBTOTALS[a]

Decision	1	2	3	4	5	6	7
1. Soil analysis for nematode control	.82						
2. Spraying with Captan for fruit-rot control	.84	.98			.05 level = .24		
3. Using "matted rows" instead of "hills"	.87	.93	.93		.01 level = .31		
4. Chemical weed control	.85	.97	.89	.96			
5. Using picking carts	.86	.87	.91	.86	.85		
6. Using virus-free certified plants	.83	.99	.93	.97	.87	.98	
7. Total	.92	.98	.96	.97	.94	.97	.99

[a] Original communalities are reported in the principal diagonal. These are included as estimates of reliability.

PREDICTORS OF DECISION-MAKING INVOLVEMENT

Analyses of family decision-making patterns can be approached from two perspectives--by considering variations within families or variations between families. Since husbands might be expected to have the major responsibility for farm decision-making within the family (an expectation supported by the responses to the individual decision items), the analysis for this study was designed to focus on the presumably more interesting aspects of between-family variations.

Between-family variations occur because in some families the husband and wife consistently decide together and in other families the husband consistently decides alone. These variations are reflected when the responses to the individual decision items are combined into total scores for the general and adoption decision-making indices.

The emphasis then shifts from each wife's involvement in decision-making relative to her husband (within-family) to her involvement relative to that of other wives (between-families). Such a shift invites an examination of the predictor variables hypothesized to be associated with the extent of the wife's farm decision-making role.

The hypothesized relationships were explored in two ways: (a) total scores on the general and adoption decision-making indices were each correlated with each predictor variable to provide indications of the strength and directions of relationships, and (b) one-way analyses of variance of low, middle, and high general and adoption decision-making groups, followed by Duncan's New Multiple Range Tests, were conducted for each predictor variable to check for nonlinear associations.

Tests were made at the .05 and .01 levels of significance for correlation coefficients and F values, while the .01 level only was utilized for Duncan's New Multiple Range Tests.

For the one-way analyses of variance, the wives were sorted into low, middle, and high groups according to natural groupings in the distributions of raw scores for each decision-making index (Figures 1 and 2). Wives did not necessarily sort into the same groups on each measure, although the correlation between the two indices ($r = .74$) was significant at the .01 level. For general decision-making, 26 wives were assigned to the low group, 28 to the middle group, and 13 to the high group. For adoption decision-making there were 23 lows, 32 middles, and 12 highs.

The low general group included five wives who reported no involvement in general farm decisions (a score of 24 is equivalent to 0 since "husband only" responses had a weight of 2), while all 23 wives in the low adoption decision-making group reported no involvement in any of the adoption decisions.

Information-Seeking, Extension Contact

The hypothesis predicting a positive relationship between the wife's overall information-seeking activity and her participation in farm decisions was supported at the .01 level for both general ($r = .55$) and adoption ($r = .77$) decision-making. (Table 12) Reinforcing the findings were highly significant F values ($p < .001$) revealed in analyses of variance of the low, middle, and high decision-making groups. For both decision-making measures, the high groups were significantly differentiated from the low and middle groups.

Figure 1

General Decision-Making: Distribution of Raw Scores

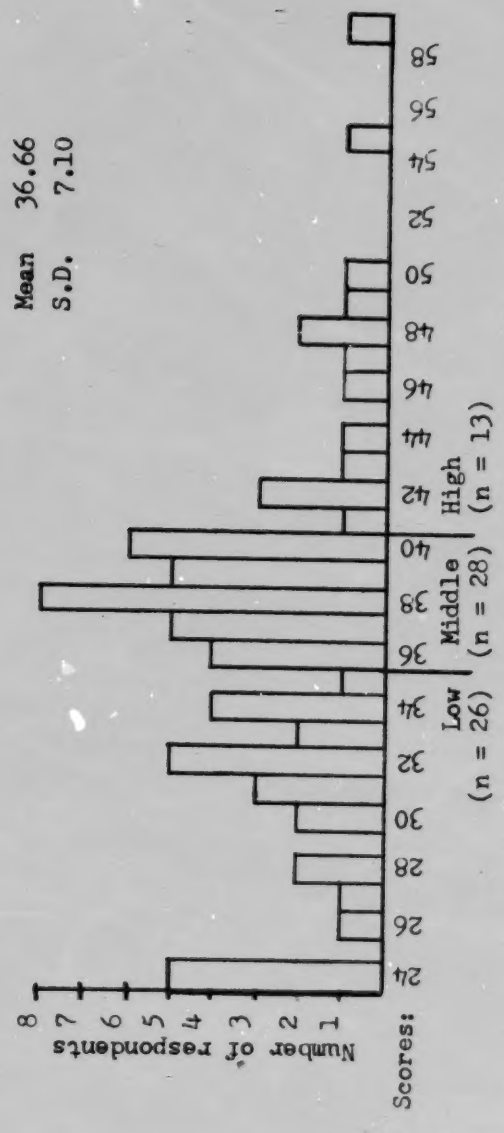
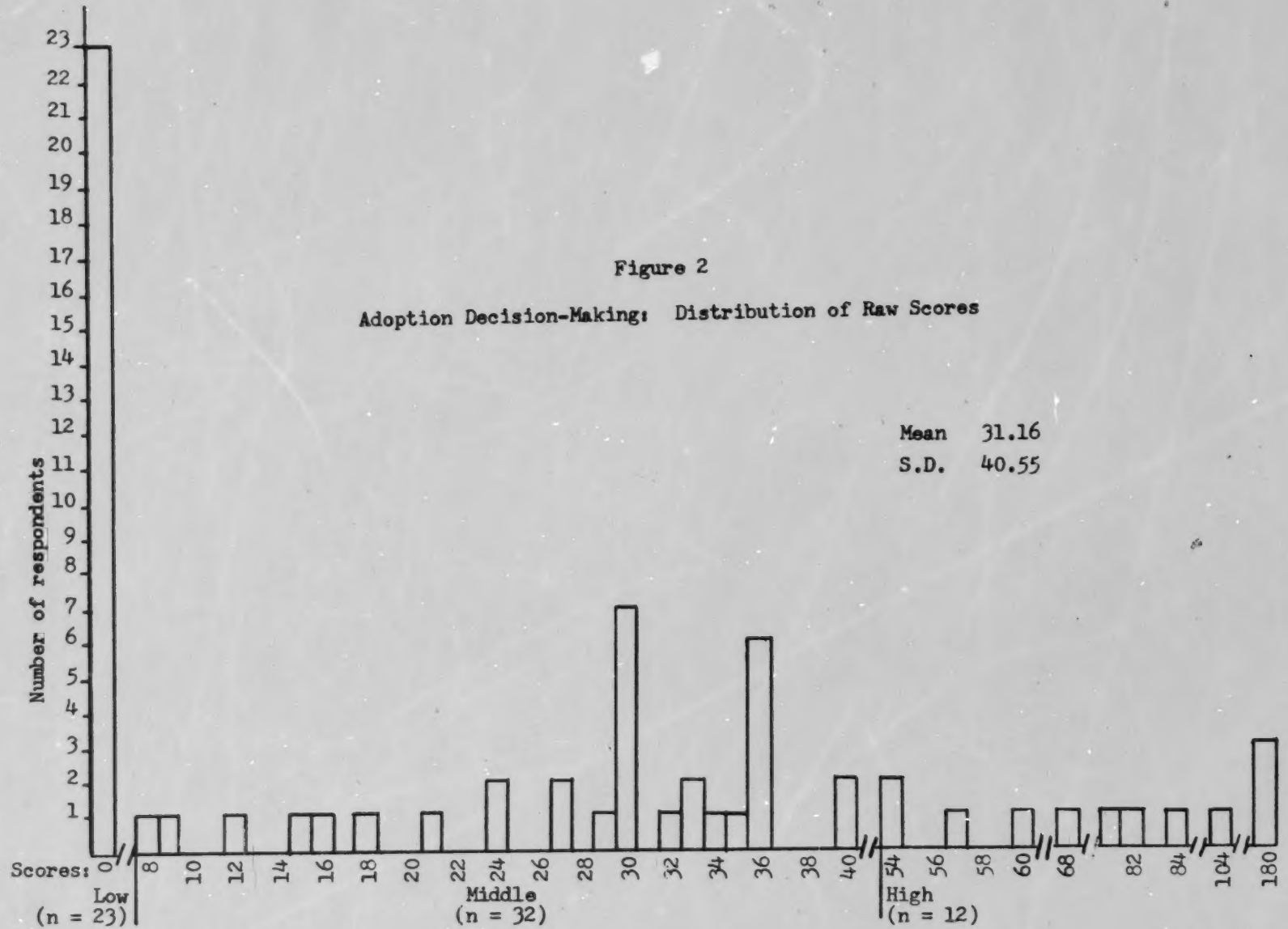


Figure 2

Adoption Decision-Making: Distribution of Raw Scores



However, the wife's Extension contact--considered as a specific type of information-seeking activity--was not significantly related to her involvement in either general decisions ($r = .16$) or decisions leading to adoption ($r = .22$). The corresponding F values were also low ($p = .410$ for general decisions and $p = .097$ for adoption decisions).

Wives who were involved in seeking information about farm business matters therefore were likely to participate in decisions about those matters, although information-seeking activity related particularly to the Agricultural Extension Service did not seem to be associated with the extent of her participation.

Task Involvement

Wives who were active in farm work roles also tended to be active in farm decision-making roles, consistent with the hypothesis predicting a positive relationship between the two variables. Scores for task involvement correlated at the .01 level with scores for participation in both general ($r = .49$) and adoption ($r = .42$) decision-making. Supporting the findings were significant F values ($p = .005$ for general decisions and $p = .001$ for adoption decisions), with high and low groups differentiated on each measure.

Number of Children

Also as predicted, the number of children in the family was negatively associated with the wife's involvement in both general ($r = -.32$, $p < .01$) and adoption ($r = -.28$, $p < .05$) decision-making. Although the corresponding F values were not high, t-tests restricted to high-low group comparisons yielded significant values for both decision-making measures ($p = .011$ for general and $p = .039$ for adoption decisions).

TABLE 12

PREDICTORS OF DECISION-MAKING INVOLVEMENT: SUMMARY OF ANALYSIS

Variable	General decision-making				Adoption decision-making			
	r[a]	F[b]	F_{prob}	DNMRT[c]	r[a]	F[b]	F_{prob}	DNMRT[c]
Information-seeking	.55	12.53	<.001	L M H	.77	48.54	<.001	L M H
Extension contact	.16	.91	.410		.22	2.40	.097	
Task involvement	.49	5.79	.005	L M H	.42	8.88	.001	L M H
Number of children[d]	-.32	2.86	.063		-.28	2.21	.116	
Income	-.48	6.91	.002	H M L	-.28	7.03	.002	H M L
Farm size	-.45	6.66	.003	H M L	-.26	5.45	.007	H M L
Education--husband	.05	.00	.996		.22	1.35	.266	
Education--wife	-.14	1.03	.364		.00	2.57	.083	
Age--husband	.11	.61	.552		.13	.02	.968	
Age--wife	.10	.36	.704		.09	.03	.959	
Social participation	-.08	.22	.804		-.03	3.02	.055	
Husband's adoption score	-.14	.25	.782		.07	1.89	.157	

[a] .05 level = .24; .01 level = .31; two-tailed.

[b] Variance source tables are presented in Appendix C.

[c] For Duncan's New Multiple Range Tests, L, M, and H represent low, middle, and high decision-making groups arranged in ascending order according to their means. Means of groups not underscored by a common line differ significantly ($p < .01$).

[d] $t = -2.67$, d.f. = 33, $p = .011$ for general decision-making; $t = -2.13$, d.f. = 30, $p = .039$ for adoption decision-making; high-low group comparison.

Socioeconomic Status

Five socioeconomic characteristics--income, farm size, education, age, and the wife's social participation--were expected to be negatively associated with the wife's emphasis on a farm decision-making role. The statistical analysis, however, yielded only two significant variables, income and farm size.

Annual gross agricultural income correlated negatively with involvement in both general ($r = -.48$, $p < .01$) and adoption ($r = -.28$, $p < .05$) decision-making, and F values for each decision-making measure were also significant ($p = .002$).

A similar pattern emerged when farm size was considered. Total acreage was negatively associated with participation in both general ($r = -.45$, $p < .01$) and adoption ($r = -.26$, $p < .05$) decision-making. The corresponding F values were also significant ($p = .003$ and .007).

Hypotheses concerning the number of years completed in school by the husband and wife, their ages, and the extent of the wife's social participation were considered as not supported since they failed to reach the .05 level of significance (Table 12).

Husband's Adoption Score

The husband's adoption of agricultural innovations was not associated with either his wife's involvement in decisions about those innovations or her participation in decisions about farm matters in general. Husbands' adoption scores, based on progress towards the adoption of six practices, yielded essentially no correlation ($r = .07$) with their wives' reported involvement in decisions concerning the adoption of those practices. Similarly, wives' participation in general decisions was not associated with adoption behavior ($r = -.14$).

TABLE 13

INTERCORRELATIONS AMONG ALL VARIABLES[a]

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. General decision-making	.67													
2. Adoption decision-making	.74	.78								.05 level = .24				
3. Information-seeking	.55	.77	.68							.01 level = .31				
4. Task involvement	.49	.42	.32	.45										
5. Number of children	-.32	-.28	-.13	-.24	.29									
6. Income	-.48	-.28	-.10	-.43	.09	.88								
7. Farm size	-.45	-.26	-.13	-.42	.06	.91	.87							
8. Extension contact	.16	.22	.36	.27	-.01	.01	.06	.32						
9. Education--husband	.05	.22	.20	.05	-.21	.30	.36	.20	.46					
10. Education--wife	-.14	.00	.17	.00	-.10	.46	.39	.13	.51	.50				
11. Age--husband	.11	.13	.02	.02	.20	-.17	-.20	-.23	-.22	-.18	.84			
12. Age--wife	.10	.09	-.03	-.02	.20	-.19	-.18	-.23	-.25	-.31	.90	.84		
13. Social participation	-.08	-.03	.11	.18	-.06	.20	.13	.30	.31	.21	-.32	-.37	.35	
14. Husband's adoption score	-.14	.07	.16	.08	.12	.29	.24	.34	.22	.22	-.45	-.44	.19	.46

[a] Original communalities are reported in the principal diagonal. These are included as estimates of reliability.

Patterns of Relationships

Parallel relationships obviously emerged for the wife's participation in general decision-making and her participation in adoption decision-making--predictor variables significantly associated with one decision-making measure were similarly associated with the other. All of the associations were in the directions hypothesized:

1. Positively associated with the wife's involvement in decision-making were her overall information-seeking activity and her involvement in farm tasks.

2. Negatively associated with the wife's involvement in decision-making were the number of children in the family, income, and farm size.

Other patterns of relationships helpful in interpreting the data were revealed when the intercorrelations among the decision-making scores and the variables significantly associated with them were examined (variables 1-7 in Table 13). The four variables concerning the wife's farm activities--her participation in decision-making, information-seeking, and farm tasks--were positively intercorrelated at the .01 level of significance. Each was negatively associated with income, farm size, and number of children, although the relationships did not reach the .05 level for information-seeking.

Family size was not related to income, farm size, or any of the other socioeconomic variables, lending support to its consideration as a predictor reflecting the wife's role in the family rather than indicating socioeconomic status.

To further examine interrelationships by determining possible common sources of variance, the investigation was extended to include a factor analysis of all fourteen variables in the correlation matrix.

TABLE 14

ROTATED FACTOR MATRIX FOR ALL VARIABLES

Factor names and definer variables	Rotated factor loadings[a]			h^2
	Factor I	Factor II	Factor III	
Factor I--Wife's business partner role				
Adoption decision-making	-.91	-.11	-.03	.84
General decision-making	-.78	-.09	.27	.69
Information-seeking	-.77	.02	-.16	.62
Task involvement	-.55	.12	.25	.38
Extension contact	-.34	.30	-.14	.23
Number of children	.29	-.17	-.03	.12
Factor II--Age				
Age--wife	-.02	-.94	.10	.89
Age--husband	-.07	-.91	.06	.84
Husband's adoption score	-.07	.45	-.28	.28
Social participation	-.10	.39	-.20	.21
Factor III--Socioeconomic status				
Income	.34	.10	-.89	.92
Farm size	.32	.10	-.84	.82
Education--wife	-.09	.24	-.54	.35
Education--husband	-.26	.26	-.49	.37
Percentage of common factor variance	37.7	31.3	31.0	$\sum h^2$=54.0

[a] Values have been reflected to facilitate interpretation.

Three factors were extracted, accounting for 54.0 per cent of the total variance. When a lower limit of .45 was enforced for rotated factor loadings, all variables but three (Extension contact, number of children, and social participation) were represented in the factor structure (Table 14).

The wife's farm-related activities clustered together in the correlation matrix fell within Factor I, which accounted for 37.7 per cent of the common factor variance. Definer variables for Factor I, named Wife's business partner role (non-involvement), concerned her participation in adoption decisions (-.91), general decisions (-.78), information-seeking (-.77), and farm tasks (-.55). Also included were Extension contact and number of children, although the loadings for these variables were relatively low.

Factor II, responsible for 31.3 per cent of the common factor variance, had heavy loadings on Age for both husbands (-.91) and wives (-.94). Husbands' adoption scores and wives' social participation were not expressly part of any factor, but were most clearly associated with Age.

Factor III identified itself as Socioeconomic status with high loadings on income (-.89), farm size (-.84), and educational levels of both the husband (-.54) and wife (-.49). It accounted for 31.0 per cent of the common factor variance.

The three factors presumably underlie all the interrelationships among the fourteen variables examined. Of particular significance to this study was the emergence of the Wife's business partner role as a relatively independent concept encompassing her involvement in decision-making, information-seeking, and farm tasks.

CHAPTER FIVE

CONCLUSIONS

The general purpose of the study was to investigate the farm wife's role in decision-making related directly to the farm business. Specifically examined were predictor variables hypothesized to be associated with the extent of the wife's involvement in decisions concerning general farm matters and decisions leading to the adoption of agricultural innovations.

The respondents were sixty-seven farm wives living in the Lower Fraser Valley of British Columbia. Data were collected in personal interviews, and analyzed using Pearson product-moment correlation, one-way analyses of variance followed by Duncan's New Multiple Range Tests, and factor analysis by the principal component method.

Focusing on directional hypotheses, the statistical analysis yielded the following findings:

1. Wives seeking information about farm matters were also likely to participate in decisions about those matters, although contact with the Agricultural Extension Service, considered as a specific type of information-seeking activity, was not associated with involvement in decision-making.

2. Wives who participated in farm tasks also tended to participate in farm decision-making.

3. The number of children in the family was negatively related to the wife's participation in decisions concerning the farm business.

4. Income and farm size were negatively associated with the wife's involvement in farm decisions, while other socioeconomic variables such as education, age, and social participation did not affect the extent of her involvement.

5. The husband's acceptance of agricultural innovations was not associated with his wife's involvement in decisions about those innovations or with her participation in decisions about farm matters in general.

Three independent factors--labeled Wife's business partner role, Age, and Socioeconomic status--were reflected in the interrelationships among all variables. Defining the Wife's business partner role were positively intercorrelated variables relating to the wife's involvement in farm decision-making, information-seeking, and tasks.

Interpretation of the findings is facilitated by the fact that parallel patterns of significant associations, consistent with the rationale developed for the hypotheses, emerged for the wife's involvement in general decisions and her participation in decisions leading to the adoption of agricultural innovations.

The clustering of variables concerning the wife's farm activities--her participation in decision-making, tasks, and information-seeking--suggests a number of behaviors which may be part of a package associated with her role as farm business partner.

Perhaps wives who participate actively in farm tasks or information-seeking generally strengthen their bargaining position in decision-making because they can draw upon knowledge and experiences relevant to the content of the decisions. Or, wives who are involved in decision-making might find that their involvement spills over

into other areas--participation in decisions may be accompanied by responsibility for gathering information to be used in decision-making or for seeing that the resulting decisions are put into action. In keeping with this interpretation of the data are Wilkening and Bharadwaj's (1967) observation that patterns of task allocation within the family tend to be similar to patterns of decision-making, and Bostian and Ross' (1965) claim that the farm wife's orientation to information sources is influenced by her participation in the business operations of the farm.

Whether involvement generates interest, or interest leads to involvement, is subject to speculation. Some wives may prefer the business partner role to the homemaker role and intentionally follow their interests accordingly. Or, keen interest might be kindled in particularly ambitious wives or wives with indecisive husbands. It might even be that wives participate in farm decision-making about as much as they care to, with the extent of their involvement depending partly on the circumstances in which they find themselves. Although no "interest index" was included which can be brought forward for opportune examination, some circumstantial evidence is available when the negative associations between decision-making involvement and income, farm size, and number of children are considered.

Negative relationships between income and farm size variables and the wife's involvement in farm decision-making have also been documented by Wilkening and Bharadwaj (1968) and Beers (1937). Their speculation that the division of decision-making responsibilities into farm and home areas becomes more pronounced as the size of the farm business increases also seems appropriate here. The scope and complexity of the

technology involved in managing a large farm may demand specialized knowledge and skills beyond the wife's experiences. Since resources are likely available for hiring help to deal with various operational aspects of the farm business or to handle specific production problems, there may be little need or opportunity for her to participate.

The negative association between the wife's involvement in decision-making and the number of children in the family possibly reflects another facet of the farm wife's role. The larger the family, the more it might be supposed that the wife's time and energy resources will be directed to the homemaker-mother role, with her role in the family business as a more or less marginal member. Although family size might also be linked with socioeconomic level and associated decision-making norms, no significant relationships were noted between the number of children in the family and any of the socioeconomic variables.

Of course the wife alone does not determine her decision-making role--income and farm size are indicative of her husband's occupational success, and he presumably has something to do with the number of children. Other investigators have found that wives of highly successful operators tend to prefer male-dominant authority patterns in farm matters (Straus, 1958), and that as the number of children increases, the family power structure becomes more authoritarian and husbands more dominant (Campbell, 1970; Nye et al., 1970).

The only variable included which directly concerned the husband's behavior was his adoption score, which was not associated with the wife's involvement in either general or adoption decisions, her participation in farm tasks, or her information-seeking activity.

Straus (1960) similarly found that high adopters were not significantly different from low adopters when the wife's participation in farm decisions was considered, although the two groups were differentiated by variables directly relating to the wife's homemaker role. It seems possible that wives of high adopters, as the wives of the "highly successful" operators in Straus' earlier investigation (1958), tend to perceive their roles in Straus' "integrative-supportive" terms, and at the same time neither emphasize nor ignore their business partner role.

A close look at the variables associated with the husband's adoption behavior leads to some speculation concerning the wife's information-seeking activity. The wife's Extension contact was the only wife-specific variable (other than age) relating to adoption scores, suggesting that such contact is more a function of his information-seeking activity than of hers. Supporting this speculation is the finding that the wife's information-seeking behavior in general, but not her Extension contact in particular, was associated with her participation in farm decisions, and Lionberger's (1960) generalization that earlier adopters tend to draw upon more authoritative information sources than do later adopters.

The overall interpretation of the major findings from this study focuses on behaviors associated with the extent of the wife's farm decision-making activity, and how resources such as money, time, energy, and skills may affect her emphasis on a business partner role. In this connection it should be pointed out that among those variables not associated with participation in decision-making were education, age, and social participation. Perhaps, as Wilkening and Lupri (1965) once hypothesized, involvement in farm family decision-making is more a

function of roles within the farm or family system than of status in the larger society.

Data from the study suggest several considerations for designing educational programs for farm families by helping to identify a framework of existing family decision-making patterns useful in facilitating the diffusion of agricultural information.

The particularly strong relationship noted between the wife's involvement in farm decisions and her information-seeking activity suggests that wives who are influential in decision-making also have predispositions to seek information relevant to the content of the decisions. While such wives presently seem to rely on information sources of a personal nature, they would seem to be potential candidates for receiving, evaluating, and transmitting agricultural information originating from other sources, such as the Agricultural Extension Service.

Since joint decision-making patterns appear likely to occur in families with relatively small farm operations, perhaps agents working with such families might do well to structure their approach to include both husband and wife. Information relating specifically to farm work roles might also be directed to both partners, as wives who are involved in farm decision-making also appear to be active participants in farm tasks.

The advisability of encouraging the wife's involvement in farm decisions seems questionable, even though educational programs such as Extension Farm and Home Development (Dorner, 1955; Slocum and Brough, 1962) have promoted joint decision-making in farm and home matters as a means of developing family decision-making skills.

Since the focus of agricultural programs is traditionally production-oriented, with emphasis on increasing financial stability and encouraging the acceptance of technological changes, there would seem to be no particular advantage to changing the existing decision-making patterns. Joint decision-making already appears extant in families on small, less financially successful farms where the distribution of resources is probably most crucial. And the presence or absence of joint decision-making in farm matters does not seem to affect the husband's acceptance of agricultural innovations.

Working within already existing decision-making patterns is surely more efficient and effective, as introducing new methods of decision-making along with technological change is essentially the same as introducing two new ideas at the same time. Existing family decision-making patterns not only offer convenient frameworks for facilitating the diffusion of decision-making information, but indicate directions for designing learning experiences making the most beneficial use of resources and personnel.

Finally reviewing the results of this study along with findings from the three other investigations which it best complements (Table 15), it is heartening to note the consensus which occurs despite variations in focus and methodology:

1. A positive relationship between the wife's involvement in farm tasks and her involvement in farm decision-making has also been confirmed by Wilkening and Bharadwaj (1968).

2. Negative associations between income and farm size and the wife's participation in farm decision-making have also been observed by Wilkening and Bharadwaj (1968) and Beers (1937).

TABLE 15

PREDICTORS OF THE WIFE'S INVOLVEMENT IN FARM DECISION-MAKING: FINDINGS FROM FOUR STUDIES[a]

	Beers (1937)	Straus (1958)	Wilkening, Bharadwaj (1968)	Sawer (1972)
Information-seeking				positive
Task involvement			positive	positive
Number of children				negative
Income			negative	negative
Farm size	negative			negative
Extension contact				n.s.
Education: husband			negative	n.s.
Education: wife			negative	n.s.
Age: husband				n.s.
Age: wife				n.s.
Social participation				n.s.
Husband's adoption score		n.s. (possibly nonlinear)		n.s.

[a] n.s. = not significant

3. The failure to find a significant association between the husband's adoption score and the wife's involvement in farm decision-making has also been reported by Straus (1960). (However, the nonlinear relationship that Straus suspected, but did not test for, did not materialize.)

While generality is restricted, the findings from this study appear to corroborate findings from previous research.

Discrepancies occur only with the education variables. Negative relationships between educational levels of the husband and wife and the wife's participation in farm decision-making were claimed by Wilkening and Bharadwaj (1968), while the data here (Sawer, 1972) yielded no significant associations. Characteristics of the respondents possibly influence the results--both husbands and wives in this study had completed an average of eight years in school, while in Wilkening and Bharadwaj's sample husbands had completed eight years and wives twelve years.

This investigation differs from the other three cited in considering variables relating to the wife's overall seeking of farm information, her contact with the Agricultural Extension Service, her social participation, and the size of her family. It also includes an examination of the wife's involvement in specific adoption decisions, rather than restricting analysis to her particpation in decisions relating to farm matters in general.

Major findings from the study, considered collectively, suggest the following general conclusions:

1. There appears to be a cluster of behaviors which may be part of a package associated with the wife's farm business partner role,

with the wife's participation in farm decision-making strongly related to her involvement in farm tasks and her seeking of agricultural information.

2. Situational variables, such as income, farm size, and family size, seem likely to restrict or encourage the wife's participation in farm decisions as family resources such as money, time, energy, and skills are allocated between farm and home units.

REFERENCES

REFERENCES

Abell, H.C. "Decision-Making on the Farm". The Economic Annalist, 31:7-9, (1961).

Alleyne, E.P., and Verner, C. The Adoption and Rejection of Innovations by Strawberry Growers in the Lower Fraser Valley. Vancouver: Department of Agricultural Economics, University of British Columbia, 1969a.

Alleyne, E.P., and Verner, C. Personal Contacts and the Adoption of Innovations. Vancouver: Department of Agricultural Economics, University of British Columbia, 1969b.

Beers, H.W. "A Portrait of the Farm Family in Central New York State". American Sociological Review, 2:591-600, (1937).

Blood, R.O., Jr., and Wolfe, D.M. Husbands and Wives: The Dynamics of Married Living. New York: Free Press, 1960.

Bostian, L.R., and Ross, J.E. "Functions and Meaning of Mass Media for Wisconsin Farm Women". Journalism Quarterly, 42:69-76, (1965).

Burchinal, L.G., and Bauder, W.W. "Decision-Making and Role Patterns Among Iowa Farm and Nonfarm Families". Journal of Marriage and the Family, 27:525-530, (1965).

Campbell, F.L. "Family Growth and Variation in Family Role Structure". Journal of Marriage and the Family, 32:45-53, (1970).

Chapin, F.S. "Social Participation Scale, 1952 Edition". In Experimental Designs in Sociological Research. New York: Harper and Brothers, 1955.

Dorner, P. "An Extension Philosophy for Farm and Home Development Work". Journal of Farm Economics, 37:493-505, (1955).

Goard, D.S., and Dickinson, G. "Attitude Toward Change Scale". In The Influence of Education and Age on Participation in Rural Adult Education. Vancouver: Faculty of Education, University of British Columbia, 1968.

Harman, H.H. Modern Factor Analysis. Chicago: University of Chicago Press, 1967.

Heady, E.O., Black, W.B., and Peterson, G.A. Interdependence between the Farm Business and the Farm Household with Implications on Economic Efficiency. Agricultural Experiment Station Research Bulletin 398, Ames: Iowa State College, 1953.

Kenkel, W.F. The Family in Perspective. New York: Appleton-Century-Crofts, 1966.

Lionberger, H.F. Adoption of New Ideas and Practices. Ames: Iowa State University Press, 1960.

Longmore, T.W., and Taylor, C.C. "Elasticities of Expenditures for Family Living, Farm Production, and Savings". Journal of Farm Economics, 33:1-9, (1951).

Nye, F.I., Carlson, J., and Garrett, G. "Family Size, Interaction, Affect, and Stress". Journal of Marriage and the Family, 32:216-226, (1970).

Province of British Columbia. The Lower Coast Bulletin Area, Bulletin Area No. 3. Victoria: Lands Service, Department of Lands, Forests, and Water Resources, 1962.

Rogers, E.M. Diffusion of Innovations. New York: Free Press, 1962.

Rogers, E.M., and Capener, H.R. The County Extension Agent and His Constituents. Agricultural Experiment Station Bulletin 858. Wooster: Ohio State University, 1960.

Rogers, E.M., and Shoemaker, F.F. Communication of Innovations: A Cross-Cultural Approach. New York: Free Press, 1971.

Ross, J.E., and Bostian, L.R. Functional Orientation of Wisconsin Farm Women Towards Mass Media. Department of Agricultural Journalism Bulletin 33, Madison: University of Wisconsin, 1965.

Royal Commission on Agriculture and Rural Life. The Home and Family Life in Rural Saskatchewan. Province of Saskatchewan Report No. 10. Regina: Queen's Printer, 1956.

Royal Commission on the Status of Women in Canada. Report of the. . . Ottawa: Information Canada, 1970.

Sawtelle, E.H. The Advantages of Farm Life. Washington, D.C.: United States Department of Agriculture, Bureau of Economics, 1924. Cited by N.L. Sims, Elements of Rural Sociology. New York: Thomas Y. Crowell, 1940.

Sewell, W.H. "A Short Form of the Farm Family Socio-Economic Status Scale". Rural Sociology, 8:161-170, (1943).

Slocum, W.L., and Brough, O.L., Jr. Family and Farm Changes Associated with Farm and Home Planning in Washington. Agricultural Experiment Station Bulletin 633. Pullman: Washington State University, 1962.

Straus, M.A. "The Role of the Wife in the Settlement of the Columbia Basin Project". Marriage and Family Living, 20:59-64, (1958).

Straus, M.A. "Family Role Differentiation and Technological Change in Farming". Rural Sociology, 25:219-228, (1960).

Thomas, D.W. "Sociological Aspects of the Decision-Making Process". Journal of Farm Economics, 37:1115-1118, (1955).

Valentine, D. "What is a farmer's wife?". The Sidney (Montana) Herald, January 9, 1963, 1.

Wilcox, W.W., and Lloyd, O.G. The Human Factor in the Management of Indiana Farms. Agricultural Experiment Station Bulletin 369. Layfayette, Ind.: Purdue University, 1932.

Wilcox, W.W., Boss, A., and Pond, G. Relation of Variations in the Human Factor to Financial Returns in Farming. Agricultural Experiment Station Bulletin 288. Minneapolis: University of Minnesota, 1932.

Wilkening, E.A. "Joint Decision-Making in Farm Families as a Function of Status and Role". American Sociological Review, 23:187-192, (1958).

Wilkening, E.A., and Bharadwaj, L.K. "Dimensions of Aspirations, Work Roles, and Decision-Making Among Farm Husbands and Wives in Wisconsin". Journal of Marriage and the Family, 29:703-711, (1967).

Wilkening, E.A., and Bharadwaj, L.K. "Aspirations and Task Involvement as Related to Decision-Making Among Farm Husbands and Wives". Rural Sociology, 33:30-45, (1968).

Wilkening, E.A., and Guerrero, S. "Consensus in Aspirations for Farm Improvement and Adoption of Farm Practices". Rural Sociology, 34:182-196, (1968).

Wilkening, E.A., and Lupri, E. "Decision-Making in German and American Farm Families: A Cross-Cultural Comparison". Sociologia Ruralis, 5:366-385, (1965).

Wilkening, E.A., and Morrison, D.E. "A Comparison of Husband and Wife Responses Concerning Who Makes Farm and Home Decisions". Marriage and Family Living, 25:349-351, (1963).

Winer, B.J. Statistical Principles in Experimental Design. New York: McGraw-Hill, 1962.

APPENDIX A

PERCENTAGE DISTRIBUTIONS FOR ALL PREDICTOR VARIABLES

TABLE 16

PERCENTAGE DISTRIBUTION OF WIVES BY

TOTAL INFORMATION-SEEKING SCORES

Score[a]	n	%
0	15	22.4
1-4	18	26.9
5-14	23	34.3
15 or more	11	16.4
Total:	67	100.0

[a] Categories determined by natural breaks or groupings in the frequency distribution of raw scores.

TABLE 17

PERCENTAGE DISTRIBUTION OF WIVES BY

NUMBER OF EXTENSION CONTACTS

Number of contacts[a]	n	%
0	36	53.7
1-2	4	6.0
3-4	8	11.9
5-8	7	10.4
9-10	6	9.0
More than 10	6	9.0
Total:	67	100.0

[a] Categories determined by natural breaks or groupings in the frequency distribution of raw scores.

TABLE 18

PERCENTAGE DISTRIBUTION OF WIVES BY

TOTAL TASK INVOLVEMENT SCORES

Score[a]	n	%
24	11	16.4
25-34	20	29.9
35-44	23	34.3
45 or more	13	19.4
Total:	67	100.0

[a] Categories determined by natural breaks or groupings in the frequency distribution of raw scores.

TABLE 19

PERCENTAGE DISTRIBUTION OF FAMILIES

BY NUMBER OF CHILDREN

Number of children[a]	n	%
None	3	4.5
1-2	15	22.4
3-4	31	46.2
5 or more	18	26.9
Total:	67	100.0

[a] Categories according to Alleyne and Verner (1969b).

TABLE 20

PERCENTAGE DISTRIBUTION OF FAMILIES

BY GROSS AGRICULTURAL INCOME[a]

Income[b]	n	%
Under 3,000	14	20.9
3,000-5,000	9	13.4
5,001-10,000	14	20.9
10,001-15,000	9	13.4
15,001-25,000	4	6.0
25,001-40,000	4	6.0
40,000-75,000	3	4.5
More than 75,000	9	13.4
Total:	66	98.5

[a] No data for one respondent.
[b] Categories according to Alleyne and Verner (1969b).

TABLE 21

PERCENTAGE DISTRIBUTION OF FAMILIES

BY FARM SIZE

Total acreage[a]	n	%
Less than 5 acres	13	19.4
5 to less than 15	23	34.3
15 to less than 30	12	17.9
30 to less than 50	3	4.5
50 to less than 80	5	7.5
80 to less than 180	3	4.5
180 or more	8	11.9
Total:	67	100.0

[a] Categories according to Alleyne and Verner (1969b).

TABLE 22

PERCENTAGE DISTRIBUTION OF HUSBANDS AND WIVES BY EDUCATION

Years of school completed[a]	Wives n	Wives %	Husbands n	Husbands %
Less than 5	8	11.9	9	13.4
5-8	21	31.3	26	38.8
9-11	20	29.9	24	35.8
12 (h.s. diploma)	13	19.4	3	4.5
Some university	5	7.5	5	7.5
University degree	0	--	0	--
Total:	67	100.0	67	100.0

[a] Categories according to Alleyne and Verner (1969b).

TABLE 23

PERCENTAGE DISTRIBUTION OF HUSBANDS AND WIVES BY AGE

Age[a]	Wives n	Wives %	Husbands n	Husbands %
25-34	6	9.0	2	3.0
35-44	17	25.4	15	22.4
45-54	21	31.3	19	28.3
55-64	21	31.3	20	29.9
65 or more	2	3.0	11	16.4
Total:	67	100.0	67	100.0

[a] Categories according to Alleyne and Verner (1969b).

TABLE 24

PERCENTAGE DISTRIBUTION OF WIVES BY SOCIAL PARTICIPATION SCORES

Score[a]	n	%
0	15	22.4
1-4	5	7.5
5-14	33	49.2
15-24	11	16.4
25-49	1	1.5
50 or more	2	3.0
Total:	67	100.0

[a] Categories according to Alleyne and Verner (1969b).

TABLE 25

PERCENTAGE DISTRIBUTION OF HUSBANDS BY ADOPTION SCORES

Adoption score[a]	n	%
18-21 (Laggards)	5	7.5
22-25 (Late majority)	21	31.3
26-29 (Early majority)	27	40.3
30 (Innovators/early adopters)	14	20.9
Total:	67	100.0

[a] Adopter categories determined by Alleyne and Verner (1969b).

APPENDIX B

LOW, MIDDLE, AND HIGH DECISION-MAKING GROUPS: MEANS AND STANDARD DEVIATIONS FOR ALL VARIABLES

'77

TABLE 26

LOW, MIDDLE, AND HIGH GENERAL DECISION-MAKING GROUPS: MEANS AND STANDARD DEVIATIONS FOR ALL VARIABLES

Variable	Low group (n = 26) Mean	S.D.	Middle group (n = 28) Mean	S.D.	High group (n = 13) Mean	S.D.
General decision-making	29.96	3.70	38.14	1.35	46.85	5.48
Adoption decision-making	6.42	11.56	31.07	19.81	80.85	62.31
Information-seeking	3.23	3.52	8.43	7.98	15.92	11.45
Extension contact	2.69	5.33	4.18	6.18	5.46	8.07
Task involvement	31.46	13.50	36.29	11.66	45.85	11.82
Number of children	4.58	2.37	3.79	2.17	2.85	1.63
Income	65,638.50	85,111.90	16,185.70	26,140.80	6,484.62	6,024.10
Farm size	132.15	193.09	25.14	35.37	9.62	8.84
Education--husband	8.42	3.56	8.43	2.57	8.46	3.60
Education--wife	9.58	3.53	8.46	3.29	8.15	3.44
Age--husband	53.77	11.98	52.07	9.40	56.15	12.60
Age--wife	48.62	10.32	48.00	8.94	50.77	10.13
Social participation	10.77	13.27	9.36	11.32	8.23	8.52
Husband's adoption score	26.50	3.25	25.96	2.82	25.85	3.87

TABLE 27

LOW, MIDDLE, AND HIGH ADOPTION DECISION-MAKING GROUPS: MEANS AND STANDARD DEVIATIONS FOR ALL VARIABLES

Variable	Low group (n = 23) Mean	S.D.	Middle group (n = 32) Mean	S.D.	High group (n = 12) Mean	S.D.
General decision-making	30.78	5.10	37.56	3.67	45.50	7.27
Adoption decision-making	0.00	0.00	28.25	8.74	98.67	51.23
Information-seeking	2.74	2.86	6.31	6.27	21.83	7.36
Extension contact	1.95	3.13	4.16	6.98	6.67	7.91
Task involvement	32.04	14.79	34.44	7.79	49.25	14.96
Number of children	4.35	2.57	4.03	1.99	2.75	1.82
Income	68,969.60	89,219.20	18,106.20	27,778.50	6,533.33	6,288.42
Farm size	132.39	198.80	34.03	64.08	10.92	11.45
Education--husband	8.70	3.31	7.84	2.74	9.50	3.71
Education--wife	9.83	3.73	7.88	3.43	9.50	1.98
Age--husband	53.87	11.60	53.31	10.20	53.42	12.93
Age--wife	48.74	9.58	49.00	9.82	48.25	10.01
Social participation	11.87	13.78	6.28	5.70	14.58	16.07
Husband's adoption score	26.78	2.24	25.38	3.44	27.00	3.69

APPENDIX C

LOW, MIDDLE, AND HIGH DECISION-MAKING GROUPS: SOURCES OF VARIANCE FOR ONE-WAY ANALYSES OF VARIANCE

TABLE 28

GENERAL DECISION-MAKING GROUPS: VARIANCE SOURCES FOR ONE-WAY ANALYSES OF VARIANCE

Source	SS	df	MS	F	p
Information-seeking					
Between groups	1411.39	2	705.70	12.53	<.001
Within groups	3604.40	64	56.32		
Total	5015.79	66			
Extension contact					
Between groups	71.63	2	35.82	.91	.410
Within groups	2522.87	64	39.42		
Total	2594.50	66			
Task involvement					
Between groups	1793.28	2	896.64	5.79	.005
Within groups	9899.89	64	154.68		
Total	11693.17	66			
Number of children					
Between groups	26.70	2	13.35	2.86	.063
Within groups	298.77	64	4.66		
Total	325.47	66			
Income[a]					
Between groups	4386949.72	2	2193474.86	6.91	.002
Within groups	19971473.27	63	317007.51		
Total	24358422.99	65			
Farm size					
Between groups	201487.21	2	100743.60	6.66	.003
Within groups	966841.90	64	15106.90		
Total	1168329.11	66			

(continued)

[a] No data for one respondent.

TABLE 28 (continued)

Source	SS	df	MS	F	p
		Education--husband			
Between groups	0.00	2	0.00	.00	.996
Within groups	650.45	64	10.16		
Total	650.45	66			
		Education--wife			
Between groups	24.18	2	12.09	1.03	.364
Within groups	747.02	64	11.67		
Total	771.20	66			
		Age--husband			
Between groups	150.54	2	75.27	.61	.552
Within groups	7880.18	64	123.12		
Total	8030.72	66			
		Age--wife			
Between groups	69.18	2	34.59	.36	.704
Within groups	6050.47	64	94.53		
Total	6119.65	66			
		Social participation			
Between groups	61.06	2	30.53	.22	.804
Within groups	8729.36	64	136.39		
Total	8790.42	66			
		Husband's adoption score			
Between groups	5.34	2	2.67	.25	.781
Within groups	659.17	64	10.29		
Total	664.51	66			

TABLE 29 (continued)

Source	SS	df	MS	F	p
		Education--husband			
Between groups	26.36	2	13.18	1.35	.266
Within groups	624.09	64	9.75		
Total	650.45	66			
		Education--wife			
Between groups	57.39	2	28.70	2.57	.083
Within groups	713.81	64	11.15		
Total	771.20	66			
		Age--husband			
Between groups	4.32	2	2.16	.02	.968
Within groups	8026.40	64	125.41		
Total	8030.72	66			
		Age--wife			
Between groups	4.96	2	2.48	.03	.959
Within groups	6114.69	64	95.54		
Total	6119.65	66			
		Social participation			
Between groups	768.42	2	384.21	3.02	.055
Within groups	8021.99	64	125.34		
Total	8790.41	66			
		Husband's adoption score			
Between groups	37.09	2	18.55	1.89	.157
Within groups	627.41	64	9.80		
Total	664.50	66			

APPENDIX D

INTERVIEW SCHEDULE

PREDICTORS OF THE WIFE'S INVOLVEMENT

IN FARM DECISION-MAKING

Respondent's Name _____

Address _____

_____

Telephone Number _____

Code Number _____

Date of Interview _____

Comments:

INTERVIEW SCHEDULE[a]

PREDICTORS OF THE WIFE'S INVOLVEMENT
IN FARM DECISION-MAKING

1,2. (Respondent's number)
3. (Data card number--1)

4,5. How long have you and your husband been farming?

6. What is your major agricultural operation?

0. No response
1. Don't know
2. Strawberries
3. Other small fruits
4. Dairy
5. Cattle (excluding dairy), hogs, sheep
6. Poultry
7. Vegetables
8. Tree fruits
9. Greenhouses, cut flowers, nursery

7. (Husband's response to above)

8. What is your secondary agricultural operation?

9. (Husband's response to above)

10,11,12. How many acres do you farm?

13,14,15. (Husband's response to above)

---

[a] Numbers along the left margin refer to columns on the data cards--responses were recorded directly on computer coding forms during the interviews. General comments and answers to open-ended questions were recorded on face sheets identifying each respondent. Items in (s) refer to calculations or to husbands' responses taken from Alleyne and Verner's (1969a) data.

16,17,18. How many acres do you have in strawberries?

19,20,21. (Husband's response to above)

22,23,24. (Number of acres devoted to agricultural operations other than strawberries--wife's response)

25,26,27. (Number of acres devoted to agricultural operations other than strawberries--husband's response)

28,29,30,31. What was the gross value of sales from all your agricultural operations last year? (Do not record last two digits on income items)

32,33,34,35. (Husband's response to above)

36,37,38,39. What was the gross value of strawberries you sold last year?

40,41,42,43. (Husband's response to above)

44,45,46,47. (Gross value of sales from agricultural operations other than strawberries--wife's response)

48,49,50,51. (Gross value of sales from agricultural operations other than strawberries--husband's response)

(START DATA CARD #2)

1,2. (Respondent's number)
3. (Data card number--2)

Have you or your husband attended any meetings of the Lower Mainland Horticultural Improvement Association this year? How many were attended by--

4. Husband only

5. Husband and wife together

6. Wife only

Did you or your husband attend any meetings of the Lower Mainland Horticultural Improvement Association last year? How many were attended by--

7. Husband only

8. Husband and wife together

9. Wife only

10. Did you or your husband attend the Strawberry Field Day this year?

0. No response
1. Don't know
2. Neither husband nor wife
3. Husband only
4. Husband and wife together
5. Wife only

11. Last year?

12. This year's Growers' Short Course sponsored by the Lower Mainland Horticultural Improvement Association?

13. Last year's Grower's Short Course?

Have you or your husband attended any other growers' short courses this year? How many were attended by--

14. Husband only

15. Husband and wife together

16. Wife only

Last year? How many were attended by--

17. Husband only

18. Husband and wife together

19. Wife only

Have you or your husband attended any other agricultural meetings, short courses, or field days this year? How many were attended by--

20. Husband only

21. Husband and wife together

22. Wife only

Last year? How many were attended by--

23. Husband only

24. Husband and wife together

25. Wife only

26. Who is your District Agriculturist?

0. No response
1. Don't know
2. Incorrect
3. Correct

27. Who is your District Horticulturist?

(START DATA CARD #3)

1,2. (Respondent's number)
3. (Data card number--3)

In the past year how many times have you yourself:

4,5. Attended agricultural meetings or field days sponsored by the District Horticulturist? (D.H.)

6,7. By other agricultural agents?

8,9. Had farm visits by the D.H.?

10,11. By other agricultural agents?

12,13. Visited the office of the D.H.?

14,15. Of other agricultural agents?

16,17. Had telephone conversations with the D.H.?

18,19. With other agricultural agents?

20,21. Listened to radio or television programs given by the D.H.?

22,23. By other agricultural agents?

24,25. Read newspaper articles written by the D.H.?

26,27. By other agricultural agents?

28,29. Read circular letters or bulletins from the D.H.?

30,31. From other agricultural agents?

32,33. (Number of contacts with the D.H.)

34,35. (Number of contacts with other agents)

36,37,38. (Total number of Extension contacts)

Who in your family: (Task involvement index)

39. Recruits the pickers

0. No response
1. Neither husband nor wife
2. Husband only (2)
3. Husband more than wife (3)
4. Husband and wife about equally (4)
5. Wife more than husband (5)
6. Wife only (6)

40. Keeps the farm accounts

41. Pays the bills

42. Works with the farm machinery

43. Completes the income tax forms

44. Pays the pickers

45. Plants the berries

46. Does the hand weeding

47. Sets the runners between the rows

48. Removes the blossoms

49. Writes the checks

50. Supervises the pickers

51,52. (Total score, task involvement index)

Who in your family decides: (General decision-making index)

53. Whether to try a new crop variety

0. No response
1. Decision has not been considered
2. Husband only (2)
3. Husband more than wife (3)
4. Husband and wife about equally (4)
5. Wife more than husband (5)
6. Wife only (6)

54. Whether to buy or rent more land

55. Whether to borrow money for the farm

56. Whether to buy major farm equipment

57. What specific make of farm equipment to buy

58. What kind of fertilizer to use

59. Whether to attend an agricultural meeting

60. Whether to subscribe to a farm publication

61. How many farm workers to hire

62. Whether to try a new farm practice

63. Whether to increase or decrease crop acreage

64. Whether to switch to a new crop

65,66. (Total score, general decision-making index)

Where do you get information to help you make these kinds of decisions? (open-ended)

67. How do you feel about the decision-making part of farming?

0. No response
1. Strongly dislike having to make decisions
2. Somewhat dislike having to make decisions
3. Have no particular feeling either way
4. Somewhat enjoy making decisions
5. Greatly enjoy making decisions

68. How difficult would you say it is for you to make up your mind and come to a decision?

0. No response
1. Very difficult
2. Considerably difficult
3. Moderately difficult
4. Slightly difficult
5. Not at all difficult

69. Does your husband ever bring home agricultural publications for you to read?

0. No response
1. Never
2. Seldom
3. Occasionally
4. Frequently
5. Very frequently

70. Do you ever bring home agricultural publications for him to read?

71. Do you ever tell your husband something you have read or heard about agricultural matters?

72. When your husband is considering a new farm practice do you yourself try and find out about it?

(START DATA CARD #4)

1,2. (Respondent's number)
3. (Data card number--4)

(Ask in sequence indicated by column numbers for each innovation separately)

4,13,22,31,40,49. Are you familiar with the practice of:

a. Soil analysis for nematode control
b. Spraying with Captan for fruit-rot control
c. Using "matted rows" instead of "hills"
d. Chemical weed control
e. Using picking carts
f. Using virus-free certified plants

0. No response
1. Don't know
2. No
3. Yes

5,14,23,32,41,50. Are you using this practice on your farm?

6,15,24,33,42,51. Who introduced the subject of the practice?

0. No response
1. Never considered
2. Don't know
3. Husband only
4. Husband more than wife
5. Husband and wife about equally
6. Wife more than husband
7. Wife only

7,16,25,34,43,52. Who found out information about the practice?

8,17,26,35,44,53. Who decided if the practice were appropriate for your farm?

9,18,27,36,45,54. Who decided whether to try the practice?

10,19,28,37,46,55. Who decided whether to adopt the practice?

11,20,29,38,47,56. Who decided to discontinue the practice?

12,21,30,39,48,57. Have you yourself ever tried to find out anything about this practice?

0. No response
1. No
2. Yes

(If yes) What sources of information did you use to find out about this practice? (open-ended)

(START DATA CARD #5)

1,2. (Respondent's number)
3. (Data card number--5)

(Adoption decision-making index)

a. Husband only (0)
b. Husband more than wife (10)
c. Husband and wife about equally (20)
d. Wife more than husband (30)
e. Wife only (40)

4,5. (Score for soil analysis--from columns 6-11, data card #4)

6,7. (Score for Captan--from columns 15-20, data card #4)

8,9. (Score for matted rows--from columns 24-29, data card #4)

10,11. (Score for chemical weed control--from columns 33-38, data card #4)

12,13. (Score for picking carts--from columns 42-47, data card #4)

14,15. (Score for virus-free certified plants--from columns 51-56, data card #4)

16,17,18. (Total score, adoption decision-making index)

(Index of husband's adoption of agricultural innovations)

19. (Soil analysis)

20. (Captan)

21. (Matted rows)

22. (Chemical weed control)

23. (Picking carts)

24. (Virus-free certified plants)

25,26. (Total score, husband's adoption of agricultural innovations)

(Information-seeking index)

27. (Number of agricultural meetings, field days, and short courses attended--from columns 4-25, data card #3)

28. (Husband brings home agricultural publications for wife to read--from column 69, data card #3)

a. Never (0)
b. Seldom (1)
c. Occasionally (2)
d. Frequently (3)
e. Very frequently (4)

29. (Wife brings home agricultural publications for husband to read--from column 70, data card #3)

30. (Wife tells husband what she has read or heard about agricultural matters--from column 71, data card #3)

31. (Wife tries to find out about new practice husband is considering--from column 72, data card #3)

32. (Number of sources of information used in general decision-making--from open-ended item, data card #3)

33,34. (Number of sources of information used in adoption decision-making--from open-ended item, data card #4)

35,36. (Total score, information-seeking index)

(START DATA CARD #6)

1,2. (Respondent's number)
3. (Data card number--6)

4. Where were you born?

0. No response
1. British Isles
2. Germany, Austria
3. The Netherlands
4. Denmark, Norway, Sweden
5. Ukraine, Russia
6. Japan
7. India
8. East Europe
9. USA
A. Canada

5,6. (If other than Canada) When did you migrate to Canada?

7,8. What is your age?

9,10. What is your husband's age?

11,12. (Difference in ages)

13,14. How many years have you been married?

15,16. How many children do you have?

17. How many are not yet of school age?

18. How many are in school?

19,20. How many are not living at home?

21. Did you work off the farm last year?

0. No response
1. No
2. Yes

22. How much time did you spend working off the farm?

0. No response
1. No off-farm work
2. Less than 1/4-time off-farm work
3. 1/4 to less than 1/2-time off-farm work
4. 1/2 to less than 3/4-time off-farm work
5. 3/4 to less than full-time off-farm work
6. Full-time work

23. What was your job?

0. No response
1. No off-farm work
2. Agriculture-related job
3. Other job

What organizations did you belong to during the past year? (Chapin Social Participation Scale, 1955)

a. Name (1)
b. Attendance (2)
c. Financial contribution (3)
d. Committee member (4)
e. Offices held (5)

24. (Number of organizations named)

25,26. (Total score, Chapin Scale)

27,28. How many years in school did you complete?

29,30. How many years in school did your husband complete?

(Sewell Scale, Short Form, 1943--Record responses in first column, weights in second column)

31,45. Construction of house:

1. Unpainted frame or other (3)
2. Brick, stucco, or painted frame (5)

32,46. Room-person ratio (number of rooms divided by number of persons):

0. No response
1. Below 1.00 (3)
2. 1.00-1.99 (5)
3. 2.00 and up (7)

33,47. Lighting facilities:

1. Oil lamps, other, or none (3)
2. Gas, mantle, or pressure (6)
3. Electric (8)

34,48. Water piped into house:

0. No response
1. No (4)
2. Yes (8)

35,49. Power washer:

0. No response
1. No (3)
2. Yes (6)

36,50. Refrigeration:

0. No response
1. Other or none (3)
2. Ice (6)
3. Mechanical (8)

37,51. Radio:

0. No response
1. No (3)
2. Yes (6)

38,52. Telephone:

0. No response
1. No (3)
2. Yes (6)

39,53. Car: (or pickup truck)

0. No response
1. No (2)
2. Yes (5)

40,54. Family takes daily or weekly newspaper:

0. No response
1. No (3)
2. Yes (6)

41,55. (Wife's education--years completed)

0. No response
1. 0 to 7 (2)
2. 8 (4)
3. 9-11 (6)
4. 12 (7)
5. 13 and up (8)

42,56. (Husband's education--years completed)

0. No response
1. 0 to 7 (3)
2. 8 (5)
3. 9-11 (6)
4. 12 (7)
5. 13 and up (8)

43,57. Husband attends church or Sunday School at least once a month:

0. No response
1. No (2)
2. Yes (5)

44,58. Wife attends church or Sunday School at least once a month:

0. No response
1. No (2)
2. Yes (5)

59,60. (Total score, Sewell Scale)

(START DATA CARD #7)

1,2. (Respondent's number)
3. (Data card number--7)

Do you agree or disagree: (Goard and Dickinson Attitude Toward Change Scale, 1968)

4. I would not mind leaving here in order to make a substantial advance in my occupation.

    0. No response
    1. Disagree
    2. Undecided
    3. Agree

5. I do not want any new job which involves more responsibility.

6. I would not leave this area under any circumstances.

7. Learning a new routine would be very difficult for me.

8. I would find it very difficult to go to school to learn new skills.

9. I have no desire to learn a new trade.

10. (Total score, Goard and Dickinson Scale)

    a. Disagree (score 0 for item 4; 1 for items 5-9)
    b. Undecided (score 0 for items 4 and 9; 1 for items 5-8)
    c. Agree (score 1 for item 4; 0 for items 5-9)